REMARKS

The disclosure is objected to because of informalities in the Abstract and Detailed Description of the Drawings sections of the patent application. Correction is provided herein.

Claims 1, 4, 5, 8, 10, 13, 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,134,231 (Wright). Claim 1 is rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,485,464 (Strodtbeck et al.). Claims 5 and 9 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,274,841 (Natarajan et al.). Claim 5 is rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,239,673 (Natarajan et al. 2). Claims 2, 3, 6, 7, 11, 12, 14-16, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner cites Wright col. 3, lines 29-40; col. 5, lines 1-18; col. 7, lines 1-10; and col. 8, lines 30-50 as disclosing all elements of Applicant's claim 1. Applicant respectfully disagrees. In general, Wright describes a method of reducing interference in a communications system by preventing users from accessing a communications channel during a puncturing time period (a randomly selected time period). See col. 3, lines 29-40. At col. 5, lines 1-18, Wright also describes a manner of arranging cells and assigning frequencies in a communication system such that the likelihood of interference in the system is reduced. Developing a frequency reuse pattern for cell deployments within a cellular environment is a well known practice in the industry and is not relevant to the invention of Applicant's claim 1. At column 7, lines 1-10, Wright describes a puncturing method for a particular frequency channel that is used to mark a window as busy or reserved at a puncturing time. At column 8, lines 30-50, Wright describes a channel access scheme either using a contention base system or a reservation base scheme. The reservation based scheme is based on using a polling flag that is broadcast to the mobile stations to determine the status of the reverse channel (busy or reserved). The reserved indication is used

to indicate a randomly selected puncturing time during which transmissions from all receiving stations is prohibited.

Wright does not teach Applicant's claim 1 method of reducing interference within a communication system by changing the rate at which a remote unit is polled for status information based on a channel condition metric of an uplink channel. In particular, Wright does not disclose the steps of polling a remote unit for status information at a first rate; determining a channel condition metric for an uplink channel; and polling the remote unit for status information at a second rate, wherein the second rate is based on the channel condition metric for the uplink channel.

Applicant submits that claim 5 is patentable over Wright for the same reasons as set forth above. Claim 10 recites a method of varying the rate of sending information based on the condition of a downlink communication channel. Claims 13 and 17 recite an apparatus that transmits a message at a polling rate/transmit rate that is determined based on a channel condition metric. As stated above with respect to claim 1, Wright does not teach sending information or transmitting a message at a rate that is determined based on the condition of a channel. Thus, Applicant submits that claims 10, 13 and 17 are not anticipated by Wright.

The Examiner cites Strodtbeck et al. col. 3, lines 10-20 and 34-45; col. 5, lines 1-15 and col. 9, lines 13-28 as disclosing Applicant's claim 1 elements "polling a remote unit for status information at a first rate" and "polling the remote unit for status information at a second rate, wherein the second rate is based on the channel condition metric for the uplink channel." Applicant respectfully disagrees. Strodtbeck et al.'s reference on col. 5 lines 1-15 and col. 9 lines 13-28 to "reducing interference" is in the context of a peer-to-peer satellite call whereby the network control center releases system resources if it receives a HANGUP signal from one terminal, either terminal is unresponsive to polling, or either terminal fails to send a monitoring message to the network control center. The network control center will also further send signals to both terminals to cease transmission. The basis for this is to reduce transmission if a peer-to-peer call is not fully connected or released such that each terminal will stop

transmission, and thus reduce RF interference. This is different from reducing interference by changing the rate at which a remote unit is polled based on the condition of an uplink channel.

The Examiner equates the "first frequency" and "second frequency" disclosed at col. 3 lines 10-20 to Applicant's "first rate" and "second rate" recited in claim 1. Applicant respectfully disagrees. The "first frequency" and "second frequency refers to a satellite peer-to-peer call whereby a first frequency or beam is selected for the uplink and whereby a terminal selects a second frequency for the downlink /beam that has the highest signal quality in terms of bit-error-rate. In Applicant's claim 1, the recitation of a first rate and second rate refers to the frequency (i.e., how often) the remote unit will be polled based on a channel condition metric for the uplink channel.

The Examiner cites Natarajan et al. col. 10, lines 14-31, 45-50 as disclosing the claim 5 steps of "polling the remote unit for status information regarding the transmitted data, wherein the step of polling takes place at a first polling rate", "determining a channel condition metric for an uplink channel" and polling the remote unit for status information, wherein the rate is based on the channel condition metric for the uplink channel." The Examiner admits that Natarajan et al. does not explicitly teach polling at a second rate, but states that it would have been obvious to have included this to the invention because the mobile units are being polled with variable frequency (col. 10, lines 14-23).

Applicants submit that Natarajan does not discloses the aforementioned steps of claim 5. Natarajan discloses a polling method whereby mobile units are polled with variable frequency based on the mobile's bandwidth requirements, not based on the condition of the uplink channel. In particular, Natarajan et al. states that mobiles with greater bandwidth requirement are polled more often than those with lesser bandwidth requirement. Also, Natarajan discloses, the polling techniques are readily made adaptive such that a mobile unit requiring greater instantaneous message traffic or those with priority traffic may be polled more often than others. The Examiner incorrectly equates "priority" with "channel condition metric" recited in claim 5. The channel condition metric refers to a metric that is indicative of the condition of the channel. Priority traffic of a mobile

station is not a metric that is indicative of the uplink channel. Natarajan clearly does not disclose "determining a channel condition metric for an uplink channel" and "polling the remote unit for status information, wherein the rate is based on the channel condition metric for the uplink channel."

The Examiner cites Natarajan et al. 2, col. 4, lines 35-45 and col. 7, lines 20-25 as disclosing the claim 5 steps of "polling the remote unit for status information regarding the transmitted data, wherein the step of polling takes place at a first polling rate", and "polling the remote unit for status information at a second rate." Natarajan et al. 2 does not disclose a method of reducing interference that includes varying the rate at which mobile units are polled based on the condition of the uplink channel. At col. 4, lines 35-45, Natarajan et al. 2 discloses that mobile units within an area of wireless coverage of a header station or communication cell, transmit on a shared uplink at a first frequency and receive messages on a broadcast downlink channel from the header station at a second frequency. The same frequencies are reused within each cell in a multicell wireless network. Here, frequency is used to refer to radio frequency, a term commonly known in the art. Applicant fails to see how this teaching of Natarajan et al. 2 is relevant to the method of claim 5.

At col. 7, lines 20-25, Natarajan et al. 2 discloses that polling a specific mobile unit involves sending downlink a polling message to the mobile unit and waiting for an immediate response. If no response is forthcoming, the polling message is sent to another mobile station. However, if the first mobile unit responds to the downlink polling message with an uplink transmission, another mobile is not polled until the uplink transmission from the first mobile unit is complete. Again, Applicant fails to see how this teaching is relevant to the method of claim 5.

The Examiner admits that Natarajan et al. 2 does not explicitly teach determining a condition metric for an uplink channel, but states that it would have been obvious to have included a condition metric to the invention because after polling takes place, high priority messages are transmitted to stations on the network. The priority of the messages are the condition metric. Again, a channel condition metric refers to a metric that is indicative of the condition of the

channel. The priority of a message is not a metric indicative of the condition of a channel. Thus, adding a channel condition metric for an uplink channel to the teachings of Natarajan et al. 2 would not have produced the method of Applicant's claim 5.

In view of the foregoing remarks, Applicants submit that independent claims 1, 5, 10, 13 and 17 are allowable of the art cited. Applicants further submit that dependent claims 2-4, 6-9, 11-12, 14-16 and 18-20 are allowable by virtue of their dependency on claims 1, 5, 10, 13 and 17, respectively.

Applicant requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. Please charge any fees associated herewith, including extension of time fees, to 50-2117.

Respectfully submitted,
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